

# LOAD SURE

Ignorance is no excuse for the drivers of overloaded vans. Dan Gilkes examines some technological solutions to this small-scale problem

According to the DVSA, almost eight in 10 vans that are stopped at the roadside are overloaded. Admittedly, officers probably first target those vans that look obviously weighed down, but this still provides some indication of the scale of LCV overloading across the UK.

If the vehicle is found to be up to 10% overweight, the fine is £100. For a van that is 10-15% overloaded, that rises to £200, and then £300 for a vehicle that is more than 15% above its maximum. The van also won't be allowed to continue on its way until a second vehicle has taken some of the load.

However, fines are not the only consequence. "Overloading affects many of the major components of the van - brakes, suspension, tyres, clutch - so it is a major safety issue," says Derek Hack, sales manager at Axle Weight Technology. "It leads to increased wear and tear on the vehicle and thus higher maintenance costs."

To help combat this problem, PSA Group will offer an overload indicator in its latest Peugeot Partner, Citroen Berlingo and Vauxhall Combo light vans. The system will have a visual indicator in the rear of the van that signals when 80% of full load is achieved, to allow the driver and a passenger to climb aboard without exceeding the maximum payload. Beyond this point, if goods continue to be added, the system provides visual and audible warnings at 100% load.

The system has yet to become commercially available; all three OEMs say that it won't be offered to customers

until at least the middle of the year. Unfortunately, when it does become available, it will only be standard on a single model specification, or as a cost option on other trim levels. That said, given the similarity between the smaller Partner, Berlingo and Combo vans and their larger siblings (Expert, Dispatch and Vivaro, respectively) there seems to be little reason why the system couldn't also be offered on the larger vans, too.

While PSA should be applauded for taking the lead in preventing LCV overloading, it is perhaps surprising that more van manufacturers have not taken the initiative before. It is of course up to operators to ensure that their drivers know their vehicles' available payload, to prevent overloading in the first place.

"When it comes to equipping vehicles, it's essential to keep in mind the payload quoted by the manufacturer. Getting the vehicle specification correct at the outset can save businesses time, money but more importantly improve staff safety," says Gil Kelly, operations director of vehicle leasing and supply company Venson Automotive Solutions.

## OEMs - NOT HELPING?

However, Stuart Richardson, senior sales engineer at Red Forge, feels that some manufacturers are not helping customers to realise the exact payload capacity of their vehicles. Quoted figures for many vans include a nominal 75kg for the driver, though in reality drivers can be 100kg or more. Also, manufacturers provide a tare weight with half a tank of fuel, but half of an 85-litre tank could add a further 38kg to that figure. Plus, there is no allowance shown for an



AdBlue tank, which could be a further 17-18 litres, around 19kg. Adding these weights together, assuming a driver and passenger, could reduce the payload by around 107kg. Fitting additional equipment will reduce the payload further.

Red Forge estimates that as little as 1% of UK 3.5-tonne vans have some form of payload indicator system fitted, even though it is the most overloaded category of vehicle.

Red Forge and Vishay weighing systems are used for Venson conversions carried out at its York facility, according to Alison Bell, marketing director for Venson. She adds: "It's still not a frequently requested option; in fact, it's quite rare." However, they are popular among housing associations that have a dedicated fleet manager. They are very conscious of health and safety, Bell says.

In terms of pricing, the PSA system is expected to cost around £200, while aftermarket axle weighing systems weigh in above that. Still, the latter do

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tend to offer individual axle weighing, rather than simply being an overall van overload indicator. This is important because, as Kelly points out, overloading includes not only carrying more than is appropriate for the vehicle size or weight, but also poor distribution of the load between axles.

By comparison, Red Forge's Limitlite Plus system costs around £1,150 per van installed, though discounts are available for larger fleet orders. Vehicle Weighing System's (VWS) VOPS2 system (pictured above during fitting) can be installed on vans of all sizes, including car-derived models, from around £995 per vehicle, while the Axtex OnBoard system, also sold for various LCVs from Axle Weight Technology, starts at £1,449 per van.

Also, VWS offers mobile fitting and fitting in its factory, states marketing director Kate Lloyd. She says: "Businesses with suitable facilities are also able to apply to become approved installers, whereby they'd be qualified to install the VOPS2 system on their own

premises with their own engineers. This is subject to training by VWS engineers to our agreed standard."

Adds Red Forge's Richardson: "We have trained and certified agents across the country to install our systems to an exacting standard."

#### **CALIBRATION**

While these systems require no particular regular maintenance, manufacturers do recommend a regular health check and recalibration. Richardson continues: "We offer a recalibration every 12 months, taking the opportunity to inspect for damage, update software where necessary and then provide a certificate of calibration."

The good news for those businesses that do adopt an axle weighing system is that it can usually be transferred to a new van at changeover time, spreading the cost over two or even three vehicles.

In fact, the systems might end up lasting longer than the van they are meant to measure. "Due to the longevity of our system, we can remove and refit to the same or another make of vehicle; we are not manufacturer specific," says Richardson. "We have a few customers that have had the system put onto a second replacement vehicle."

Lloyd points out that a like-for-like swap of the system to a new van is "fairly simple". But she qualifies that by adding: "If the equipment is being moved on

to a different type of vehicle, some modifications may be required."

Some might say that there are no excuses for vehicle overloading. The payload is a known figure and companies should know what they are carrying. In practice, it is perhaps not always that simple. Varying daily loads make it difficult to assess what's on board, especially in terms of individual axle loading, as the contents of the vehicle change throughout the day.

Some axle scale customers have even been pleasantly surprised to find that they had been overly conservative about van loading prior to fitment, and afterwards could carry more, boosting profitability.

According to Hack, there is no typical customer for van scales. "Any van operator is a potential customer, there are literally thousands of Axtex OnBoard systems fitted to vans across the UK, though it is still quite a small proportion of those that need it."

The good news for van operators is that there are plenty of systems available providing accurate axle loadings and ensuring legal use of the van, both from the aftermarket and OEMs as well. [IE](#)

#### **FURTHER INFORMATION:**

'Making your ideal weight' – [www.is.gd/ujefiq](http://www.is.gd/ujefiq)  
'Lightweight rigid roundup' – [www.is.gd/oxatiw](http://www.is.gd/oxatiw)